

REMARKS

The Specification

The Examiner had objected to the disclosure because of its reference to the claims. Paragraph [0001] as numbered in U.S. Patent Publication Application No. US 2008/0246328 has been amended to delete references to the claim, and paragraph [0008] has been cancelled.

The §112 Rejections

The Examiner had rejected several of the claims under §112 and had particularly pointed out language in claims 8 and 10. Claims 8 and 10 have both been amended to clarify the issues noted by the Examiner.

The Substantive Rejections

Independent Claim 1

The Examiner had rejected claim 1 in its prior form based upon Swisher '147 in view of Simms et al. U.S. Patent No. 3,387,891.

Claim 1 has now been further amended to clarify the location of the combustion engine and its relation to front and rear axles of the chassis. It is now required that the combustion engine is fixed to the machine chassis between the pivoting arms and "behind the front axle and in front of the rear axle".

Claim 1 as amended is distinguished from the Swisher '147 patent in at least the following ways:

1. As the Examiner has noted, Swisher does not teach a combustion engine fixed to the chassis "between the pivot arms".
2. Swisher '147 does not teach the location of the combustion engine fixed to the chassis "behind the front axle and in front of the rear axle".
3. As the Examiner has further noted, Swisher does not teach an output shaft arranged transversely to the direction of travel, with the pivoting arms "pivoted for rotation about the axis of the output shaft".

None of those missing features are taught by the Simms et al. reference:

1. Regarding the first two features, the combustion engine of Simms et al. is attached to the pivot arms and is not fixed to the chassis.
2. The pivot arms and the milling drum of Simms et al. do not pivot about an output shaft axis of the engine of Simms, but instead pivot about the bearing 52 where the pivot arms 14 are connected to the chassis 12.

The Examiner had cited the secondary reference to Simms et al. stating that "Simms et al. teaches a combustion engine (56) fixed to a machine chassis (12) between pivoting arms (14), and the at least one output shaft being arranged transversely to the direction of travel." With respect it is submitted that the Examiner has misinterpreted the Simms et al. reference. The combustion engine, which is actually number 58 rather than 56, is not fixed to the machine chassis 12

but instead is fixed to the pivot arms 14 and moves up and down with the pivot arms 14.

It is respectfully submitted that the combination of the teachings of Simms et al. to those of Swisher '147 would not result in the claimed invention. Simms et al. would teach that the combustion engine should be placed on the pivoting arms so as to pivot therewith, which would not allow the pivoting arms to pivot about an output shaft of the engine. Accordingly, it is respectfully submitted that amended claim 1 and those claims dependent therefrom should be allowed for the reasons indicated.

Dependent claims 2-11 and 15-22 all depend from amended claim 1 and should be allowable for the same reasons as stated above for claim 1 plus the further reason that they add additional features which are not shown or suggested in combination with the combination of claim 1. Specific comments regarding certain of those dependent claims were submitted in the amendment previously filed herein and will not be repeated.

New Dependent Claim 28

New dependent claim 28 further requires that the engine is located in front of the milling drum so that the engine is located between the front axle and the milling drum.

Claim 28 also requires that the pivot arms extend rearward from the axis of the output shaft so that the milling drum is located between the axis of the output shaft and the rear axle.

Neither of the cited references teach these additional features. In Swisher the engine is in front of the front axle, and in Simms the engine is behind the milling drum. Furthermore, in Simms the pivot arms extend forward, not rearward.

New Dependent Claim 29

New dependent claim 29 depends from claim 10 and further requires that “extension of the piston cylinder unit raises the working drum and contraction of the piston cylinder unit lowers the working drum”.

This is directed to the embodiment shown in Fig. 4 of the application.

The Allin 2,111,134 reference which the Examiner has relied upon re claim 10 teaches the opposite, namely it lowers the working implement upon extension of its piston cylinder unit.

New Dependent Claim 30

New dependent claim 30 depends from claim 1 and further defines the details of the power transmission device as including a belt drive with an arrangement of pulleys that is not taught by any of the cited references.

The New Claims

Independent Claim 31

New independent claim 31 is distinguished from the Swisher ‘147 reference in at least the following ways:

1. Swisher does not teach a combustion engine fixed to the chassis between the pivot arms.
2. Swisher '147 does not teach the location of the combustion engine "behind the forward running gear and in front of the milling drum".
3. Swisher does not teach "an engine having an output axis co-axial with the pivotal axis".

None of those missing features are taught by the Simms et al. reference:

1. The combustion engine of Simms et al. is attached to the pivot arms and is not fixed to the chassis.
2. The combustion engine of Simms et al. is located behind the milling drum not in front of the milling drum.
3. The pivot arms and the milling drum of Simms et al do not pivot about the output shaft axis of Simms, but instead pivot about the bearing 52 where the pivot arms 14 are connected to the chassis 12.

Accordingly, it is respectfully submitted that claim 31 and all those claims dependent therefrom should be allowed.

Claim 32

New dependent claim 32 further requires that "the combustion engine has a crankshaft axis, and wherein the output axis and the pivotal axis are co-axial with the crankshaft axis."

Neither the Swisher '147 nor Simms '891 references teach an arrangement wherein the crankshaft axis of the combustion engine is co-axial with the output axis and the pivotal axis of the pivot arms.

Claims 33-34

Dependent claims 33-34 require that the power transmission device includes a belt drive which pivots about the pivotal axis of the pivot arms. This is not taught by either cited reference. Swisher uses a chain drive. The drive of Simms et al. does not pivot about the pivotal axis of the pivot arms.

Claim 35

Dependent claim 35 is directed to a feature discussed at paragraph [0021] of the published application and requires that there is a mechanical power transmission device located in only the first pivot arm, and that the second pivot arm extends laterally outward from the chassis a shorter distance than does the first pivot arm so that the apparatus can mill closer to an obstacle on the second side of the apparatus than it can on the first side of the apparatus. This is not taught nor suggested by either of the cited references.

Claim 36

Dependent claim 36 further requires that the apparatus include "an operator's platform supported from the chassis and transversely movable relative to the chassis."

This is not taught by either of the cited references.

With regard to a similar feature found in original claim 5, the Examiner has rejected that claim 5 based on the contention that “It would have been considered obvious to modify Swisher, Jr. ‘147 to include a transversely movable operator’s platform since such an arrangement allows for better view while cutting.”

With respect, there is no such teaching in Swisher ‘147 and the Examiner’s conjecture based upon no prior art teaching is not an adequate grounds for rejection of this claim. Accordingly, claim 36 should be allowed for this further reason.

Claims 37-40

Dependent claims 37-40 add features regarding the lifting linkage utilized to lift and lower the milling drum and pivotable arms relative to the chassis.

With regard to original claims 7-11 relating to different features of the lifting linkage, the Examiner cited Allin U.S. Patent No. 2,111,134. Claims 37-40 each specify features of the lifting linkage that are not taught by the Allin reference and thus these claims should be allowed for these further reasons.

For example, claims 37 and 38 require that the lifting linkage include “first and second two-armed levers located on opposite sides of the chassis and connected to each other in a non-rotatable manner by a coupling device extending parallel to the drum axis of the milling drum”.. Although Allin has first and second two-armed levers 34, they are not “connected to each other in a non-rotatable manner by a coupling device extending parallel to the drum axis of the milling drum”. As can be seen in Fig. 4 of Allin his two bell cranks 34 are not connected together at all.

Claim 38 further requires that extension of the piston cylinder unit raises the milling drum. Allin shows the opposite.

Claims 39 and 40 both require that the lifting linkage include a shorter arm connected to the piston cylinder unit and a longer arm connected to the pull link. Allin, in contrast, has two equal length arms on each of his bell cranks 34.

Claim 40 further requires a second shorter arm and a second longer arm on an opposite side of the chassis, with a coupling device connecting the two pairs of arms. Again, Allin has no connection between his two bell cranks 34.

Accordingly, claims 37-40 should be allowed for these additional reasons.

Independent Claim 42

Independent claim 42 is distinguished from the Swisher '147 reference in at least the following ways:

1. Swisher does not teach a combustion engine fixed to the chassis between the pivot arms.
2. Swisher does not teach a combustion engine fixed to the chassis behind the forward running gear and in front of the rear running gear.
3. Swisher does not teach a second pivot arm extending laterally outward from the chassis a shorter distance than does the first pivot arm in order to allow the apparatus to mill closer to an obstacle on the second side of the apparatus.

Those missing features are not taught by the Simms reference:

1. Regarding the first two distinctions, in Simms the combustion engine is not fixed to the chassis but instead is attached to the pivot arms.
2. Simms does not teach the second pivot arm extending laterally outward from the chassis a shorter distance than does the first pivot arm.

Accordingly, it is respectfully submitted that claim 42 should be allowed over the cited references.

Claim 43

New dependent claim 43 further requires that the engine (which claim 42 requires to be behind the front axle) also is located in front of the milling drum. It is further required that the milling drum is located behind the pivotal axis.

Neither of the cited references teach these additional features. In Swisher the engine is in front of the front axle, and in Simms the milling drum is located in front of the pivotal axis.

Claim 44

New claim 44 further requires that “the engine has an output shaft axis co-axial with the pivotal axis.”

Neither the Swisher ‘147 nor Simms ‘891 references teach an arrangement wherein the output shaft axis of the combustion engine is co-axial with the pivotal axis of the pivot arms.

Claim 45

Claim 45 further requires that the apparatus include “an operator’s platform supported from the chassis and transversely movable relative to the chassis.”

This is not taught by either of the cited references.

With regard to a similar feature found in original claim 5, the Examiner has rejected that claim 5 based on the contention that “It would have been considered obvious to modify Swisher, Jr. ‘147 to include a transversely movable operator’s platform since such an arrangement allows for better view while cutting.”

With respect, there is no such teaching in Swisher ‘147 and the Examiner’s conjecture based upon no prior art teaching is not an adequate grounds for rejection of this claim. Accordingly, claim 45 should be allowed for this further reason.

Claim 46

Claim 46 adds features regarding the lifting linkage utilized to lift and lower the milling drum and pivotable arms relative to the chassis.

Claim 46 should be allowed for the same additional reasons as discussed above regarding claim 37.

Independent Claim 48

New independent claim 48 includes at least the following features which are not taught by the Swisher reference:

1. Swisher does not teach a combustion engine fixed to the chassis between the pivot arms.

2. Swisher does not teach the combustion engine fixed to the chassis behind the forward running gear and in front of the rear running gear.
3. Swisher does not teach the lifting linkage including:
 - “first and second two-armed levers located on opposite sides of the chassis and connected to each other in a non-rotatable manner by a coupling device extending parallel to the drum axis of the milling drum;
 - first and second piston cylinder units connected between the chassis and the first and second two-armed levers; and
 - first and second pull rods connected between the first and second two-armed levers and the milling drum.”

Those missing features are not taught by the Simms reference:

1. Regarding the first two features, in Simms the combustion engine is not fixed to the chassis but instead is attached to the pivot arms.
2. Simms does not teach anything about the lifting linkage, and as further explained above these features of the lifting linkage are also not taught by Allin.

Dependent Claim 49.

Dependent claim 49 further requires that extension of the piston cylinder unit raises the milling drum. Allin shows the opposite.

Dependent Claim 50

New dependent claim 50 further requires that the engine (which claim 48 requires to be behind the front axle) also is located in front of the milling drum. It is further required that the milling drum is located behind the pivotal axis.

Neither of the cited references teach this combination of features. In Swisher the engine is in front of the front axle, and in Simms the milling drum is located in front of the pivotal axis.

Conclusion

In summary, it is believed that the arguments and amendments set forth above are sound, and accordingly reconsideration of the application is requested along with an early indication of the allowance of claims 1-11, 15-22 and 28-50.

Respectfully submitted,

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